Micro-Entrepreneurship Training and Assets Transfers: Short Term Impacts on the Poor[1]

Claudia Martínez A.[2]
Esteban Puentes[3]
Jaime Ruiz-Tagle[4]

This Version: October 21, 2012
PRELIMINARY DRAFT – DO NOT DISTRIBUTE – DO NOT QUOTE

Abstract

If micro-entrepreneurs are capital constrained, increasing their assets should improve their businesses and employment. By using a randomized controlled trial approach in a large-scale publicly-run micro-entrepreneurship program in Chile that provides business training and asset transfers, we assess the effectiveness of this strategy in increasing individuals' income. We evaluated two levels of asset transfers, the program normal transfer of US$600, and a second transfer that increased the first one by 40%. We find that the micro-entrepreneurship program does significantly increase employment and income by 18% and 32% respectively after one year, and significantly improves the business practices of its beneficiaries. The additional transfer has an effect in employment, at the intensive and extensive margin, but does not have a significant effect on income. The program seems more effective for individuals with higher ability who were either unemployed or self-employed at the beginning of the program.

[1] We are grateful to Marcela Basaure, Pablo Coloma, Ghia Gajardo, Marcos Sánchez, Claudio Storm, and FOSIS for their close collaboration on the impact evaluation. We also thank María Ignacia Contreras, Víctor Martínez, and Cristián Sánchez for their excellent research assistance. We are also indebted to Taryn Dinkelman and Tomás Rau for their useful comments. The authors acknowledge financial support from the International Initiative for Impact Evaluation (3ie) and FOSIS. Puentes and Ruiz-Tagle also acknowledge financial support from the 'Iniciativa Científica Milenio' (Project NS100041).

[2] Department of Economics, University of Chile. Email: cmartineza@econ.uchile.cl.

[3] Centre of Micro Data and Department of Economics, University of Chile. Email: epuentes@econ.uchile.cl.

[4] Centre of Micro Data and Department of Economics, University of Chile. Email: jaimert@econ.uchile.cl.

1 Introduction

If micro-entrepreneurs are capital constrained, increasing their assets level could boost their income generation capacity. This intuition has lead to microcredit initiatives in nearly all developing countries (for a review see Morduch, 1999). Surprisingly, there is little evidence on its effects. The few papers addressing this include Banerjee, Duflo, Glennerster and Kinnan (2010) for the case of India and Karlan and Zinman (2009) in the Philippines. Banerjee et al. (2010) find that access to microcredit has heterogeneous effects on purchase of durable goods depending for current businesses and the propensity to become a new business owner. On the other hand, Karlan and Zimman (2009) find evidence that microcredit has stronger impacts on male and higher-income entrepreneurs. Therefore microcredit does not seem to be a poverty alleviation strategy that would be useful for all individuals.

Furthermore, access to the financial sector through loans imposes a risk on the individuals and usually requires large short-term returns to make regular payments. At the same time, micro-entrepreneurs might need some starting capital, so that individuals learn if their idea of a business is successful: For instance, Banerjee et al. (2010) show evidence that there is a fixed cost to starting a business and that micro-business can be unreliable career choices. In Chile around 12% of small formal firms close per year[5]; we can speculate that this percentage is higher for informal and new micro-businesses. Thus if there is an assumption that micro-entrepreneurship can be a strategy to increase the income of vulnerable families, it is important to consider who would bear the risk on these initiatives. Microcredit puts the household in risk, whereas alternatively asset (or cash) transfers to the entrepreneur are a risk for the donor.

Several papers have investigated the effect of assets and cash transfers to small entrepreneurs. In the case of Sri Lanka, De Mel, McKenzie and Woodruff (2008) have shown that asset transfers, either in kind or cash, increases profits. Additionally, they find evidence that microenterprises have high yearly returns (55%-63%). Fafchamps, McKenzie, Quinn and Woodruff (2011) found a yearly return of 37-39% in Ghana.

[5] Benavente and Kulzer (2008).

Following the same strategy of providing assets transfers in kind and cash, McKenzie and Woodruff (2010) estimate a monthly return to capital of 20-33% for Mexico. Therefore, there is evidence that small entrepreneurs have high returns to capital.

Despite this evidence of high returns, access to microcredit still is limited. In Chile, middle and low-income individuals have wide access to credit through retail stores (50% of individuals in the first income quintile use this type of credit (Survey of Household Finance, 2007)). However, there is still limited access to loans intended to finance small-scale business, especially for individuals who have previously defaulted on loans. For example, there is a linear relationship between access to credit and firm size (Román, 2003), where the loans converage rate to micro-entrepreneurship is around 45%, whereas the system overall has a rate of over 100% (ILO and SERCOTEC, 2010). Thus, it is reasonable to conclude that many profitable entrepreneurial ventures simply do not start because of limited access to credit.

In this context, micro lending does not seem likely to reach very poor individuals who aim to start or develop a business in Chile. If one approaches micro-entrepreneurship as an activity that could help vulnerable households to increase their labor income considering that there are high return rates and lack of access to the financial market, then asset transfers could be an instrument to facilitate entrepreneurship of the poor without increasing their financial vulnerability and making them bear the risk of discovering the return of their business idea.

However, lack of funding may not be the only constraint to the existence and growth of microenterprises. Factors such as ability and motivation matter, and adequate business training might also affect performance (McKernan (2002), De Mel, McKenzie and Woodruff (2008), Karlan and Valdivia (2011)). Micro-entrepreneurs might not only lack capital for starting or improving their projects, but also the basic knowledge skills and tools required to successfully run their businesses. There is little evidence of the effects of training, and reasonable doubts persist regarding whether the skills needed to manage a micro-firm or become a successful self-employed individual can be taught. Karlan and Valdivia (2011) did not find any effects of a business training intervention on business revenue, profits, or employment among micro-entrepreneurs in Peru. On the other hand, Drexler, Fischer, and Schoar (2010), evaluating the effects of two different financial literacy programs in the Dominican Republic, found that effects on business outcomes can

differ significantly according to the type of training. The authors find that simple 'rule of thumb' training increases the likelihood that small entrepreneurs keep accounting records, calculate monthly revenues, and separate household and business records. Given that evidence on training programs could be specific to the context and the type of training, makes it difficult to extrapolate results from different trainings implemented in different countries, the results of Drexler et al. could be particularly useful.

In this paper we implemented a randomized controlled trial to evaluate the impact of a large-scale, publicly run, anti-poverty program targeted to micro-entrepreneurs in Chile. The program is called "Micro-entrepreneurship Support Program" (MESP)[6] and it is administered and managed by the Chilean Ministry of Social Development. MESP has two components: an in-kind transfer of start-up capital of about US$600[7] (approximately 4.5 times the poverty line) and 60 hours of training in successful business practices with follow-up mentoring visits. The asset-transfer is made in kind so that the entrepreneur can choose the required materials (or inputs) to buy according to a business plan developed during training. Our sample has 1,661 applicants in the Metropolitan Region of Santiago who are assigned to different treatment groups. To the best of our knowledge, this is the first randomized evaluation of a public program of these characteristics.

Considering the program has two components, training and asset transfer, a second treatment group was included to investigate the relative importance of each component. This second treatment group received additional capital of US$240 around seven to eight months after the first transfer and training was completed. The second transfer can be considered as a capital shock, as beneficiaries did not expect it until three weeks before it was delivered. The comparison between the two treatment groups provides information on the capital return rates conditional on having received the training and the first transfer. The comparison of the untreated group and the regular MESP program provides information about the joint impact of training and assets transfers.

Using a dataset we created, with a baseline and a one-year follow up, our study allows us to identify the effects of MESP on employment, income, and entrepreneurship, as well as its effect on business practices. Our Intent to Treat estimations show that the program, as it is

[6]In Spanish, the program is known as "Programa de Apoyo al Microemprendimiento" (PAME).

[7] The US$600 (Ch$300.000) has been decreased to US$460 (Ch$230.000) in 2012.

implemented by the government has a positive and significant effect on employment, independent work, and labor income. The same estimations for additional capital show positive and significant effects in these variables as well. The MESP program and the additional capital transfer also increase household per-capita labor income and have no effect on the labor supply of the rest of the household members. The additional transfer assets have a positive effect over MESP in employment and self-employment; however, there is no additional effect on labor income or household per-capita income.

Analyzing the heterogeneous treatment effect we find that the MESP program has a larger impact on independent work for individuals with higher cognitive measures. Furthermore, the program exhibits the largest effects on unemployed workers at the baseline, followed by independent workers at the baseline survey. The smallest effect is for dependent workers at the baseline. We interpret these results in two ways. First, the program seems to be more effective in individuals with higher cognitive measures. Secondly, the program seems to equalize the outcomes of the most vulnerable individuals with the least vulnerable in terms of employment.

Our results also suggest that providing business training and asset transfers are successful in increasing employment and labor income of beneficiaries in the short run. Recipients improve their business practices and increase capital stock of the business. There is no substitution effect of labor within the household, leading to an increase in per capita labor income. Furthermore, there is no change on women's decision-making or expenditure in children's education. Increasing the amount of capital transferred to individual does not appear to increase their labor income, but does increase the probability of being employed.

This paper contributes to the literature on both asset transfers and training. It joins work such as Karlan, Knight and Udry (2012) who analyzed the impact of a cash transfer and consulting services to a specific group of micro-entrepreneurs (tailors) in Ghana, finding that the cash transfer and training might have lowered profits. This also includes works like de Mel, Mckenzie and Woodruff (2012) on providing training to women in Sri Lanka as well as a group cash transfer to women. They find that training had a bigger effect on women with new businesses, not for women with existing business. Also, these entrants are poorer and have lower ability levels.

Our paper provides evidence on the effect of entrepreneurship training not only for current entrepreneurs with access to microcredit, (like Karlan and Valdivia (2011) in Perú) but also for individuals who are unemployed at the time of the intervention, similar to de Mel et al. (2012). We also include individuals who were dependent workers at the time of the intervention, while testing how additional asset transfers interact with entrepreneurship programs and previous transfers.

The rest of the paper is organized as follows. Section 2 describes the program and the intervention. Section 3 discusses the data collection process and the balance and attrition of the sample. Section 4 and 5 present the empirical strategy and results, respectively. Finally, section 6 summarizes the main results and their implications.

2 Description of the Intervention

This paper studies the effect of giving micro-entrepreneurial training and business training to poor people who applied either to start a business or to enlarge an existing one. The intervention aims to evaluate the impact of a large scale, publicly run, micro-entrepreneurship program as it is currently implemented and to assess the impact of additional asset transfers. Hence, the experiment design includes three treatment arms: a control group, a treatment group that received the regular MESP program, and a third group that received an asset transfer in addition to the regular transfer of the MESP program. A comparison between the first two groups provides an estimate of the impact of the program, whereas a comparison between the two treatment groups provides an estimate of the effect of additional capital conditional on having received the regular MESP training and original asset transfer.

2.1 The Micro-entrepreneurship Support Program (MESP)

MESP was started in 2006 by the Ministry of Social Development of Chile.[8] It has about 24,000 beneficiaries each year. The program's purpose is to give previously unemployed or under employed individuals the skills and capital required to generate income as independent workers.

[8] The program is carried out by the "Solidarity and Social Investment Fund" (in Spanish: Fondo de Solidaridad e Inversión Social, FOSIS), which depends of the Ministry of Social Development (in Spanish: Ministerio de Desarrollo Social).

MESP's target population comprises extremely poor households, specifically ones with individuals over 18 years old, who benefit from social security and are unemployed or have an unstable job. Interested individuals must apply to the program in government agency offices and self-report their employment status among other characteristics. Applicants demonstrate they qualify for the program by filing a Social Security Card (SSC) and obtaining a score below a certain threshold.[9] Our sample consists only of Beneficiaries of "Chile Solidario", which is the main anti-poverty program of the Chilean Government..

The program has a training component as well as an asset-transfer component. The training component of the program runs for four months. The first three weeks consist of intensive formal training in micro-entrepreneurial skills. The rest of the time is allocated exclusively towards mentoring visits as described below. The training sessions teach businesses planning tools, basic administrative planning such as keeping record of sales, prices, and expenses. Training consists of sixty hours during the three weeks. All MESP graduates must have an attendance rate of 80%. This means that participants can miss up to 2 of the12 sessions. The follow-up mentoring visits have the objective of complementing the acquisition of skills in the implementation of the business plan developed during the training.

After the formal training, there is financial support comprised of an in-kind transfer of about US$600 that the beneficiaries can spend on machinery, raw materials, or other inputs.[10] The trainer can go with the entrepreneur to buy the inputs, or the entrepreneurs purchase the inputs and provides a receipt as proof that the expenditure was made. The distribution of the amount of funding is standard and does not differ by type of business, economic sector, or geographical location. The monitoring process of the entrepreneur lasts for another three months. During this period beneficiaries are visited three times by the

[9] The Social Security Card (SSC) is the "Ficha de Protección Social" (FPS). The government-implementing agency, according to economic resources, needs, and risk factors, sets the threshold in the SSC scale. The SSC score goes from 2072 to 16316 points, with a lower number implying a higher degree of vulnerability. The threshold for the MESP was set at 8500 points corresponding to the lower 20% of scores. People with less than this threshold could be eligible for the program. The SSC is aimed to measure economic vulnerability.

[10] The amount they receive is Ch$300,000. A maximum amount of 10% could be received in cash or as working capital.

implementing institution to follow up on the performance of the businesses and to provide managerial advice.

The aim of the intervention is that the beneficiaries of the program acquire a minimum of competencies and skills required to run a businesses. Individuals would get acquainted with businesses practices and would be able to implement them in their own entrepreneurial activities. The training process allows individuals to create a business plan, which would be implemented using the grant they receive as part of the program.

Institutions to provide the training are selected through a bidding process. These organizations include private institutions such as foundations, public institutions such as municipalities, or tertiary education institutions properly accredited by the government. The chosen institution provides all services as a package for the beneficiary with standardized protocols for this provision.

In order to study the level of achievement of the training protocols, we set up a call center and randomly selected 89 beneficiaries for a short telephone survey. We contacted 71 individuals, obtaining the following results: 70 said that they received the transport subsidy, 70 answered that a day care center was available for beneficiaries, 59 received a notepad during the training lessons, and 71 thought that the contents of the training were useful for their business. We also randomly supervised training sessions participants of the evaluation, observing that the protocols were correctly implemented. These results confirm that the agencies providing the training met almost all the requirements of the program, reducing potential treatment heterogeneity.

2.2 MESP with Additional Funding

The additional funding component was implemented specifically for this study, and corresponds to a lump sum of US$240,[11] to be given to beneficiaries in addition to the US$600 received under the *normal* MESP program. Like the initial transfer, recipients could use the grant for equipment and inventory and were escorted by personnel of the implementing institution or were required to provide receipts. The resources were delivered seven months after the end of the MESP program. Individuals that received the additional

[11] US$240 ≈ Ch$120,000.

funding did not know about the additional funding during the MESP program, and therefore did not plan their first purchase considering this additional transfer.

Comparing beneficiaries assigned to this treatment to the *normal* MESP program allows us to estimate capital return rates conditional on having received previously the MESP program.

2.3 Experimental design

Our study consists of the evaluation of the MESP program and the MESP with additional funding in the Metropolitan Region of Santiago in 2010 using a randomized controlled trial approach. Figure 1 shows the intervention calendar.

The evaluation was designed to evaluate MESP as it was currently implemented and to identify returns to capital for different asset transfers conditional on receiving the business training. It was politically impossible to create a diluted MESP, separating the training and capital components to ascertain the effectiveness of each individual intervention. Thus, the strategy pursued was extending one of the components. The program intervention was implemented in the Metropolitan Region of Santiago as this would allow a better monitoring and supervision of the project.[12]

The MESP program is offered at least once a year. Individuals must apply to the program, and then FOSIS apply its eligibility criteria. We randomized among eligible individuals in three treatment arms: (i) control group, (ii) access to the MESP program, and (iii) access to

[12] As part of this study we also randomly assigned individuals to an additional-training treatment arm and conducted a pilot study of a microcredit treatment arm. In the first arm, individuals were offered an additional training implemented by volunteer students of the University of Chile. Only 20% of the sample accepted the offer to be involved in additional training, so we cannot assess the impact evaluation of that treatment arm with reasonable power. In the latter case, a pilot study for the microcredit treatment arm was implemented by facilitating the contact with a microcredit institution through invitation letters to a microcredit talk. Only 16% of the sample attended the meeting and only 14% applied for microcredit, while only 6% finally obtained a loan. Considering these low rates, we did not evaluate this situation. Importantly, the lack of success of this latter intervention was both caused by the low application rate, as well as by the eligibility criteria of the microcredit institution that ruled out all individuals that had formal arrears.

additional funding. We stratified applicants using four quartiles of the SSC score and residence municipality.[13]

The treatment arms were implemented with a total of 1948 individuals who were randomly assigned to each group. Table 1 shows the 566 individuals who were assigned to the control group, the 689 to the "normal" MESP (T1) and the 693 to the "normal" MESP plus additional funding (T2). Limiting the sample to individuals for which both the baseline and follow up surveys are available, the individuals in each treatment arm are 475, 574, and 612 respectively. The intervention was conducted from October 2010 to February 2011.

Comparing T1 to the Control group will provide the impact of the regular MESP program as it is implemented today; this is the overall effect of both the training and the in-kind transfer jointly. The effect of T2 versus the Control group allows us to estimate the impact of the regular MESP program with additional in-kind transfer. Comparing T1 to T2 will provide the effect of additional funding conditional in having received the regular MESP program.

[13] The four groups were built using three SSC score cuts: 2168, 2298.5, and 3445 points. Recall that the upper limit to enter the program was 8500 points; however, the applicants are concentrated in lower part of the SSC score, revealing the high degree of vulnerability of the program participants.

3 Data and Measurement

We collected data through household surveys. In order to avoid benefit-seeking answers and ensure instrument reliability, an impartial third party conducted the surveys. The implementation of the survey was clearly confidential, and it was emphasized that there was no link between what was declared in the survey and the individual's eligibility for social programs.

The baseline survey took place between September and October 2010 and obtained a 94% response rate. The follow-up survey took place between October and November 2011 and obtained a response rate of 88%.[14] We address balance among treatment groups and attrition in the following subsections.

3.1 Balance among treatments and control groups

We use baseline survey data for variables of interest to test the randomness of assignment to treatment or control groups using a means test comparison for the subsample interviewed in both waves. In Table 2 we present the mean values for the Control Group, Treatment MESP (T1), and Treatment MESP plus additional funding (T2). In the last three columns we present the p-values for the test of differences in the mean comparing T1 against Control group, T1 against T2, and T2 against Control group.

Table 2 shows the characteristics of the individuals in each treatment group. It shows that around 94% of beneficiaries are females with an average age of 36. Approximately 32% individuals have only completed primary education, while 4 to 6% have some tertiary education. The average SSC score is between 3,550 and 3,625 points, well below the entrance threshold requirement of 8,500 points. None of the observed differences in individual characteristics between treatments are statistically significant at the 5% level. The fact that beneficiaries have, on average, low levels of education and are highly vulnerable (according to the SSC score) indicates that the MESP program fulfills its goal of targeting poor individuals.

[14] These response rates are calculated over the randomized population.

Regarding income variables, around 65% reported being employed and between 48 to 50% reported being independently employed.[15] Average monthly labor income lies between Ch$51,000 and Ch$58,000 (approximately between US$102 and US$116). Again, none of the differences observed for income related variables are statistically significant at the 5% level. The fact that a significant proportion of individuals already work indicates that unemployment may not be the most serious aspect of their condition; rather the problem seems to be their low incomes. Per capita monthly labor income is between Ch$33,394 and Ch$35,612 in different treatment groups. Per capita monthly total income is around Ch$48,000 (approximately US$98), well below the official national poverty line of Ch$65,000 (approximately US$130). In fact, the poverty rate in our sample is of 76-78%. According to the mean difference tests, none of these differences is statistically significant among treatment arms.

The number of workers within households is on average between 1.38 and 1.46. The ratio of workers to the number of persons in the household (the inverse of the dependency ratio) is on average between 0.30 and 0.31. The number of individuals within the household is between 4.8 and 5.0 depending on the treatment group. Households hold assets are worth between Ch$406,509 and Ch$437,862 (between US$816 and US$876) on average. Again, none of the observed differences are statistically significant, except for the number of individuals between the control group and the MESP group.

It is also worth noting that other variables of the data are also well balanced. For example, risk aversion and numeracy indexes do not exhibit significant differences between treatment groups.

In light of the evidence, we are confident the randomization process was successful in generating well-balanced treatment groups. Our analysis therefore uses the random assignment to estimate the treatments effect with respect to the control group. In addition, we use it to compare the regular MESP and the MESP with additional asset transfer.

[15] Individuals can report more than one occupation and they might be both wage earners and independent workers. In these cases, we classified individuals as independents if their larger source of labor income came from independent work.

These summary statistics also shed light on the special characteristics of the applicants with respect to the eligible population: applicants are overwhelmingly woman, and a large fraction of them work. Therefore, the external validity of the MESP impact results should be carefully considered.

3.2 Attrition assessment in the follow-up

In order to test whether attrition in the follow-up could be heterogeneous among different treatment groups, we ran the following regression:

$$y_i = \alpha + \alpha_1 \text{ x } T1_i + \alpha_2 \text{ x } T2_i + \varepsilon_i \qquad (1)$$

where y_i is equal to 1 if the individual is present in the follow up survey, and equal 0 otherwise.[16] The variables $T1_i$ and $T2_i$ are dummy indicators of the treatment status. Variable $T1_i$ will be equal to 1 if the individual *i* was randomly assigned to the normal MESP program, otherwise it will equal 0. Variable $T2_i$ will be equal to 1 if the individual *i* was randomly assigned to the MESP program plus additional funding, otherwise it equals 0.

We obtained that the coefficient associated with T1 is not statistically significant, indicating that attrition does not differ between individuals randomly assigned to the control group and those assigned to the normal MESP program (Appendix Table 1 shows the result of this regression). However, we obtained that attrition was lower in the MESP with additional funding group. In fact, the coefficient associated to T2 is significant. Also, the difference test between the coefficients associated to T1 and T2 supports that attrition was lower in the group with additional funding compared to that of the normal MESP program.[17] Hence, the results we obtain for T2 in the following section must be interpreted with care as they might be influenced by the response rate, both in their comparison to the treatment group as well as with respect to T1. In section 5 we show how results could be affected when we consider bounds to assess this issue (as in Lee, 2002, and Kling and Liebman, 2004).

[16] The sample consists of the people in the baseline. Similar results are obtained for the simple of randomized individuals.

[17] Following Fairllie, Karlan and Zinman (2012) we regressed the follow-up dummy on the treatment variables, a set of observed characteristics in the baseline, and the same characteristics interacted with he treatment variables and then perform an F test on the interaction coefficients. The p-values for the F tests are 0.92 for the MESP treatment and 0.87 for the additional funding treatment.

4 Empirical strategy

Our empirical strategy relies on the random allocation of each eligible individual to a treatment group, which guarantees that individuals in each treatment group are, on average, the same. As shown in the previous section, this assumption is strongly supported by the data in the baseline. However we note that there is no random attrition in T2, which we consider when presenting results. We thus compare outcomes of interest *y* for individuals in the control group and those individuals who participated in the normal MESP (T1). We will also compare individuals who were assigned to participate in the normal MESP (T1) and those who were offered additional funding (T2).

Our main estimation equation will be:

$$y_i = \beta_0 + \beta_1 \times T1_i + \beta_2 \times T2_i + \Sigma_j (\gamma_j \times x_{ij}) + \varepsilon_i \quad (2)$$

where y_i is an outcome variable (as employment, income or hours of work), $T1_i$ and $T2_i$ are dummy indicators of the treatment status as explained above, and x_{ij} is a set of baseline variables we use as controls. We discuss control variables below. Fixed effects for strata are included in each regression specification.

Following equation (1), the coefficient β_1 will show the effect of being offered participating in the normal MESP program compared to the control group. This coefficient is a key parameter of interest, and it will be interpreted as the effect of the intention to be treated of the MESP program. If the coefficient is significantly different from zero in the estimated equation, this will be evidence that the effect of offering MESP on the corresponding outcome is statistically significant. Accordingly, the coefficient β_2 will show the effect of being offered the opportunity to participate in the MESP program plus the additional funding (hereafter MESP+) compared to the control group. In order to determine the effect of additional funding, we will examine whether the difference between β_1 and β_1 is statistically significant. If β_2 is statistically significantly different from β_1, that will be evidence of a significant effect of additional funding on top of the MESP program.

We study the existence of heterogeneous treatment effects with the following equation:

$$y_i = \alpha_0 + \Sigma_k (\alpha^k_1 \text{ x } T_i \text{ x } D^k_i) + \alpha_2 \text{ x } T_i + \Sigma_k (\alpha^k_3 \text{ x } D^k_i + \Sigma_j (\lambda_j \text{ x } x_i) + \varphi_i \quad (3)$$

where T_i is a dummy that takes the value of 1 if the individual was beneficiary of MESP (in its regular format or with the additional funding), D^k_i is the variable where the interaction effect is studied, and x_i is the set of controls. The variable of interest is α^κ_1. It represents the treatment effect for the particular sub group studied. If $\alpha^k_1 = 0$, then the MESP effect does not vary by D_i, and the average homogenous effect would be captured in α_2. We study the existence of heterogeneous treatment effect considering MESP and MESP+ under the same treatment dummy given that, we will show, there is not overall a large impact of MESP+ over MESP and for power reasons.

5 Results

Following a discussion of our empirical strategy, we now turn to the estimation results of equation (2) for different key outcomes. We first analyze the treatment impact on the beneficiary's labor market outcomes: employment, independent work, labor income, and hours worked. We then consider employment behavior within the household. Given that the program aims to decrease poverty we want to see if there is a substitution effect within the household on their labor market participation. Finally, we estimate the program effect on the household per capita labor income. In order to understand the mechanisms under which the program operates, we analyze the program effect on a set of business practices. Finally, we analyze a different set of outcomes related to the empowerment of the female beneficiaries. We end by presenting the analysis of the main results considering the different attrition rate observed in PAME+ with respect to PAME and the control group.

The result tables (3-9) follow a common structure. All estimation results included the controls of the stratification variables (SSC score and the municipality where individuals lived). In the first column, this is the only set of control included. The second column also includes the following set of characteristics from the baseline survey: gender, age, education, number of persons in household, number of families in household, assets, risk aversion, and index of financial literacy, and an ability index. The third column considers the lagged dependent variable (its value in the baseline survey in 2010) as a control. In the fourth column we add to the set of characteristics of the baseline survey to the lagged

dependent variable. If the dependent variable is not available in the baseline, then only the first two specifications are presented.

Employment, Independent Work and Individual Labor Income

The first outcome is employment as the main objective of the MESP program is to increase employment rates. The first row of Table 3 corresponds to the coefficient of the normal MESP program (T1), indicating that there is an increase in the employment rate of between 11.6 and 11.8 percentage points due to program compared to the control group (columns 5 to 8). All regressions specifications are highly significant. The MESP+ treatment (T2) produces a coefficient between 17.1 percentage points and 17.7 percentage points, depending on the specification (columns 5 to 8). Again, these impacts are highly significant. This is strong evidence that the MESP program both with and without additional funding generates a large significant impact on employment. At the bottom of Table 3 we show the p-value of the t test of equality of the effect of T1 and T2. It can be seen that the MESP+ produced larger and significant effects compared to the "normal" MESP, as the p-values are below 5% for all specifications.

The impact of the MESP program on independent work is between 14.9 and 15.4 percentage points and is always statistically significant (columns 1-4 of Table 3). Moreover, the impact of MESP+ is even larger, reaching between 24.4 and 24.8 percentage points. It is important to note that the coefficients are stable across the different specifications. By comparing T1 with T2, it can be seen that the large difference in their coefficients is statistically significant at the 99% confidence level. Hence, the MESP program both with and without additional funding does produce an increase in the number of individuals who work independently, and there is an additional increase in independent work on those that received the additional asset transfer.

A critical underlying assumption supporting the MESP program is that individuals who start microbusinesses have larger incomes than if they stayed in dependent labor or have remained unemployed/inactive. According to our estimations results, the MESP program produces significant increases in labor income (see columns 1-4 in Table 4). Depending on the specification of the regression, we estimate the impact at between Ch$22,530 to Ch$25,343 (between US$45 and US$50) a month, with highly significant coefficients. Considering that the labor income level in the control group is approximately Ch$71,000,

this impact implies that MESP beneficiaries are obtaining, on average, a 32% higher labor income than those of the control group. In addition, MESP+ increases labor income by an average of between Ch$32,346 and Ch$34,623 (US$65 and US$69), significant at conventional levels. When compared to the control group, individuals enrolled in the MESP+ experienced an average increase of 46% of their labor income. Despite the large mean difference of estimated effects of the additional funding over the regular MESP program, the high variance does not allow us to reject the null hypothesis that both interventions have the same effect in labor income as p-values in last row are rather large.

Therefore, the MESP both with and without the additional funding increases independent work and labor income. The additional asset transfer significantly increases the probability that the beneficiary declares himself as being independently employed; it has a smaller but positive effect on the probability of being employed overall, but we find no statistically significant effect on labor income.

The effect on labor income could be caused by differences in effort for each treatment arm. In order to address this possibility, we calculate the effect of the MESP on working hours and hourly labor income. Our estimation results in Table 5[18] indicate that there is a significant increase in the number of working hours due to the MESP program. The program induces an additional 4.4 hours of work per week over the control group, which works 19.9 hours per week. This represents a 22% increase in working hours per week. The MESP with additional funding generates an increase of 7.4 hours per week over the control group, which is a 37% increase compared the control group. The impact of the MESP+ over the normal MESP is only highly significant with p-values below 5%.

The joint increase of labor income and working hours could cast doubts regarding the productivity of labor activities. However, our results in Table 5 (the last four columns) indicate that there is a significant increase in the hourly labor income. In fact, the MESP program produces a 48% increase in the hourly labor income relative to the control group. This is particularly important as it reveals the profitability of individual's business ventures. The MESP with additional funding produces an increase of 42% in the hourly labor income compared to the control group. This result can be interpreted as evidence of decreasing returns to the hours worked, or decreasing returns to capital. Alternatively, the increase in

[18] We do not have baseline measures of hours worked, therefore we cannot control by their baseline values.

independent activities caused by MESP+ with respect to MESP, might have induced an change in the characteristics of the independent workers. This is, the individual returns might have not changed, but individuals with lower returns could be working as independent workers with MESP+.

The lack of effect of MESP+ over the normal MESP on labor income and the positive effect on employment could have longer-term effects on its beneficiaries that are not captured in the one year scope of our study.

Household outcomes

The principal goal of the MESP program is to help poor individuals overcome poverty. Poverty measures depend on household per capita income. Thus, we turn to analyzing effects at the household level. First, we focus on employment. Previously, we showed (Table 3) that the program has a positive effect on the employment rate of the beneficiary. This effect could extend to the rest of the household. For instance, it could increase employment if other household members join the business venture. On the other hand, there could be a substitution of workers within the household, such that other household members choose to work less. To test these hypotheses, we estimated the impact of T1 and T2 on the number of household members employed without considering the beneficiary (Table 6, columns 1-4). The results indicate that there is not any significant increase in employment of the rest of the members of the household, neither for the MESP program nor for the MESP+.

The increase in the number of employed individuals and in the labor income of the beneficiary is expected to produce an increase in per capita income.[19] In fact, per capita household labor income does increase significantly for both treatment arms (with no statistical difference between them, see Table 6 columns 5-8). While normal MESP produces an increase of 13%, MESP+ produces a rise of 14% in per capita household labor income. The difference between MESP and MESP+ is not statistically significant.

Business Practices

[19] Both T1 and T2 have no effect on the number of household members.

We have shown that the MESP program both with and without the additional asset transfer is successful in increasing employment, hours worked, and per capita income. Considering that the MESP program is a combination of business training and asset transfer, in this section we present the program effect on a set of business practices collected from the follow up research.

We follow de Mel, et al. (2012) and use several questions to create different scores of business practices,[20] summarized into the categories of marketing, inventory management, costing and record keeping, and financial planning index. For example, one question used to measure marketing practices is: "During the last 3 months, have you asked your clients if they would like that your business sell a new product or offer a new service?" For that question, 57% of the small entrepreneurs responded yes, with important differences by treatment arm: 44% for the control group, 58% for MESP, and 60% for MESP +. To measure pricing and record keeping, the following question was used: "Have you calculated the cost of your main products?" Of the micro-entrepreneurs, 73% answered yes, and again we observe important differences by treatment: 62% in control group, 73% in MESP and 79% in MESP +. Finally, to measure planning practices, one of the questions asked was "Have you made a budget for next year costs?" For this question we observe lower affirmative answers, only 29% on micro-entrepreneurs had prepared a budget for next year. There are fewer differences by treatment arm for this question: 28% in the control group, 31% for the MESP treatment, and 28% for the MESP + treatment.

We have also collected reports on the amount of cash available for business expenses, as well as a report filed by the surveyor on the existence of inventory and book of register. The Intent to Treat report of T1 and T2 on these outcomes is reported in Table 7.

Panel 1 of Table 7 shows the results of self-reported outcomes. Outcomes A to D are the sum of dummy variables that take the value of 1 when all business practices are performed. The marketing, inventory management, pricing and record keeping, and financial planning variables are the sum of 9, 5, 7 and 4 dummy variables respectively. Outcome E is the sum

[20] We thank Christopher Woodruff for facilitating the questions. The specific questions used in the construction of each variable are reported in Appendix 2.

of all business practices included in outcomes A to D. Considering these variables we can see that both T1 and T2 significantly improve business practices. For example, T1 increases the number of marketing practices by 1.5, whereas T2 does so by 1.8. Furthermore, T2 has a significantly larger effect with respect to T1 on inventory management, and the overall index..

Columns (11) and (12) of Table 7 show the average individually reported amount of cash available for a beneficiary's business. The control group reports an average of Ch$8,300 available. T1 and T2 report an increase of Ch$19,354 and Ch$20,359 respectively. These are large increases, but are not statistically significant.

Finally, in the second panel of Table 7 we report outcomes of two business practices reported by the enumerator: a dummy with a value of 1 if the enumerators reports having seen the inventory, a dummy with value of 1 if he reports having seen a written business record[21]. This could be a better measurement of the outcomes if individuals improve the quality of their report with their training. In an extreme case, what was found in the first panel could be simply an improvement in the quality of self-report, but not an increase in the behavior.[22] In the control group, the enumerators report that only about 2% of the respondents show such registers.[23] MESP roughly doubles these proportions, whereas MESP+ quadruples them. Again, we cannot identify a differential effect of MESP+ with respect to MESP.

These results show that the training seems to have affected the practices of small entrepreneurs. At the same time, it is possible that small entrepreneurs do not get involved

[21] These questions are asked only if the interview was conducted at the business.

[22] This measurement report problem could bias our results in either direction: individuals with training might learn about the business practices (including how to compute profits) and then improve their reporting. In the case of profits, the knowledge might increase or decrease their estimated profits. For example, if they were not including their wages, then profits will be lower, but if they were not accurately computing their sales, profits might be larger. We have different strategies for addressing these potential problems. In the case of business practices, we added an enumerator report. However, we could not derive directly income numbers by observing the entrepreneurs because our sample size makes this cost prohibitive.

[23] The 2% of individuals in the control group who show the registry book increases to 40% when we consider the sample of micro-entrepreneurs who were interviewed at their businesses.

in these practices, but they remember them as important from the training lesson. However, since the follow-up survey was conducted almost a year after the training lessons and that we use information given by the enumerator, it is likely that small entrepreneurs engage in better business practices.

Empowerment

We also test if the program has an effect on the decision power of woman, who are overwhelmingly the beneficiaries of the program. The increase in income and employment of the program beneficiaries might increase their decision power. We studied this in the sub-sample of women who have a spouse or cohabitating partner. We have two measurement types. First, we analyze who usually make the expenditure, savings, and debt decisions in the household. Secondly, to measure actual behavior and its effect on children, we considered the per-child educational expenditure the household.

The results in Table 8 show no program effects on female decision-making or educational expenditures. This is consistent with the previous literature on microcredit and training (Banerjee et al.. (2010) and Karlan and Valdivia (2012)).

Bounds

The response rate of the follow-up survey was 94%, conditional on being interviewed in the base line, however there are differences by treatment type. The response rate of the control group was 92%, for the MESP treatment it was 91%, and for the additional funding treatment it was 96%. As we reported in section 3.2, attrition is correlated with T2, which affects the interpretation of the results presented in the previous sections. At the same time, there are not any statistical differences between the follow-up response rates between the control group and the MESP group. We study the implications of these differences in response rate by constructing lower and upper bounds. Following Lee (2005) we need to make the monotonicity assumption that receiving additional funding affects sample selection in only one direction. In our case, this implies that some individuals would have not participated in the follow-up if they did not receive additional funding, but that additional funding did not cause certain individuals to not participate in the follow-up research.

The bounds proposed by Lee (2005) consist in trimming the distribution of the dependent variable, and the percentage of the attrition is equal to the differences in the attrition rates between the additional funding group and the other two groups, divided by the response rate of the additional funding group. In our case, that number is 4.5%

We calculate the upper and lower bounds for the variables presented in Tables 3, 4, 5, and 6. The lower bound trims 4.5% of the upper distribution of the continuous variables. In the case of discrete dummy variables, we randomly trim 4.5% of the individuals with value equal to one for the corresponding variable. In the case of the upper bound, since all the variables, continuous and discrete, have a mass greater that 4.5% at zero, we randomly trim 4.5% of the individuals with value equal to zero for each variable.

We trim the variables for the additional funding group and then estimate the same model for Tables 3, 4, 5, and 6. Table 9 shows the upper bound estimates. We can observe that the effect of additional funding over the control group is still significant for employment, independent work, and hours worked, and marginally significant for labor income from independent work. For the rest of the independent variables the effect is not significant, except for number of employed individuals in the household, which is negatively significant. In the comparison with MESP, the additional funding group performs better on employment and independent work. This exercise shows that the results for employment and independent work are very robust, moreover, even as a lower bound additional funding has positive effect on hourly labor income and marginally on labor income from independent work, compared with the control group.

The upper bound is shown in Table 10; we observe that in comparison with the control group, all coefficients are positive and significant, with the exception of number of household workers. In the comparison with the MESP group, additional funding has a larger effect on independent work, general employment, income from independent work and hours worked. However, there are no differences in per capital labor income, labor income, and in the number of household members who work.

Heterogeneous Treatment Effect

It is important to understand the existence of a heterogeneous treatment effect to identify the population on which MESP has a larger effect. This is particularly important considering the external validity of the study, as previously mentioned, program participants differentiate substantially from the average population. This is noted in our discussion of summary statistics of eligible applicants (where, for example the share of females (94%) and the employment rate at baseline (65%) is particularly skewed). Therefore, potential extensions of the program should consider these characteristics.

We defined three sets of characteristics that could affect the treatment effect. First, considering that the program has a training component, we are interested on whether the effect depends on the beneficiaries' previous human capital. On one hand, it is possible that individuals with greater human capital could reap more rewards from the training (and the asset transfer) than other participants. This would result in the program having a larger effect on them. On the other hand, the program could level the playing field for individuals with lower human capital. In order to test these hypotheses we measure human capital in two ways: education and cognitive ability. The education variable is measured with a dummy that takes the value of one if the individual has completed high school and zero if she has a lower level of education. In our sample, 43.3% have, at the very least, completed high school. Cognitive ability is measured by having the participants subtract the number 7 starting from 100. They were given four trials. We construct an index that goes from 0 to 4 and it is equal to the number of correct subtractions, whether or not the previous subtraction was correct or incorrect.[24]. The average number of correct answers is 2.6.

We look for heterogeneity in the preexistence of employment and/or owning a business to the program. Individuals who already own a business could have a degree of practical expertise and insight that could make the training more relevant. Additionally, it is possible that they could make better investments using the asset transfer. On the other hand, training might be irrelevant for those who have previous skills. Another possibility is that those with previous experience could reject the education provided to them in training courses, assuming that they know better methods. To test these hypotheses we constructed a dummy that takes the value of one if the individual reported having a business at the baseline. Also, being employed (wage earner or independent) is a measure of experience that could be used

[24] The number of correctly answered questions goes from 0 to 4. These questions are based in the Health and Retirement Study.

either to understand the education or to view it as irrelevant. To test these hypotheses we constructed a dummy that takes the value of one if the individual reported being employed as wage earner at baseline, and included it the regressions.

Finally, we want to understand whether the level of vulnerability has an effect on program outcomes. Less vulnerable individuals could have better initial conditions (e.g. human capital, fewer financial constraints) that could help them take greater advantage of the program training and asset transfer. On the other hand, more vulnerable individuals might be more financially constrained and the return to capital for them might be higher, while the training might allow those with lower education levels to catch up. We study this potential heterogeneous effect interacting the treatment dummy with a dummy that takes a value of one if the per capita household income is above the sample median.

In Table 11 we present results for independent work (columns (1)-(5)) and labor income (columns (6)-(10)). Columns (1) and (6) report the overall treatment effect when the only control is the strata, as in columns (1) of Tables 3. The treatment effect of MESP in independent work is an increase of 20 percentage points. The effect increases to 23 percentage points when the interactions are included. The interaction effects are presented in four ways: controlling only by strata, including all other controls, including the baseline value of the dependent variable, and including all of the above (columns (2)-(5) and columns (7) to (10)). We find that ability affects the treatment effect: individuals with higher ability benefit more from MESP in terms of independent work. Answering one question correctly implies an increase in the probability of having independent work in 4 percentage points .

Regarding previous employment conditions, we find that individuals who were working at the base line have a negative impact on the probability of being independent workers in the follow-up. Additionally, the negative effect is larger for dependent workers than for independent workers. Being a wage earner decreases the treatment effect by 18-19 percentage points, whereas being previously independent decreases this negative effect by 10 percentage points.

In the case of labor income the average of MESP and MESP+ is Ch$28,000 , and we do not find heterogeneous effects.

In our sample, unemployed individuals have the intention to start to work and, in the spirit of de Mel et al. (012), we call them *potential business owners*. Thus our findings that MESP has larger effects on unemployed individuals are similar to the ones found by De Mel et al.. (2012), who also found that training has larger effects on *potential business owners* compared to actual business owners. Additionally, we find that the effect of MESP can be even lower for the case of dependent workers, which is a new result for this literature.

6 Discussion and Conclusions

Micro-entrepreneurial programs targeted to the poor revolve around two objectives: providing entrepreneurial skills and granting access to capital. Armed with these resources, poor individuals should be able to establish more successful business, allowing them an opportunity to escape poverty. However, there is little evidence to suggest that these types of interventions that include both training and asset transfers actually produce large expected benefits for enrollees, particularly for government-run programs.

In this paper we assess a large-scale publicly run program (MESP) aimed to support micro-entrepreneurial activities among extremely poor individuals in Chile. We use random assignment to assess the effectiveness of the program. The intervention also included an additional treatment that granted additional capital to further contribute to the sustainability of a beneficiary's entrepreneurial activities. To the best of our knowledge, this is the first evaluation of a large-scale public program of training and asset transfer to improve entrepreneurship, and that test different levels of transfers.

Our results show that the MESP program significantly improves beneficiaries' labor income and employment. The program increases employment and particularly self-employment by 18% and 33% respectively. The program also increases the number of hours devoted to work by 22%. Moreover, the program increases labor income by 32% and per capita labor income by 13%. In addition, we find that the program significantly improves business practices in marketing, cost and stock management, and planning. The program does not seem to have an effect on the beneficiaries' budget decision making in

the household nor in their children educational expenses, both typical measurement of female empowerment

The second treatment, which granted additional capital along with the full benefits of the MESP (called MESP+), proved to be rather successful compared to the control group. The additional funding treatment increases employment and independent activities by 26% and 55% when compared to the control group. This treatment also increases the number of hours devoted to work by 38% compared to the control group. Moreover, the MESP+ increases labor income by 42%. The gain in hourly labor income was 37%. This last figure is lower than the impact of the normal MESP. This might be caused by decreasing returns to hours worked or by a change in the composition of individuals working, .

The larger effects we find for MESP+ compared to MESP are not always statistically significant. Specifically, the effect for MESP+ is significantly larger for employment, independent work, and working hours, but not for income variables.

The effectiveness of the MESP program can be addressed by comparing the increased income to the cost of the program. We performed a simple back of the envelope calculation to estimate the profitability of the total direct cost of the MESP program. We estimate its cost, based on the implementing agency figures, at Ch$600,000 (US$1,200) where half of it is the cost of training and the other half is the amount of asset transfer. Considering the increase in labor income (between Ch$22,530 to 25,343; US$45 to US$50), this cost is recovered in 24-27 months of increased labor income. This is a very short period. However, this calculations assumes that the results will last for another 12 months, which will only be known after the second follow-up survey planned for October 2012. The monthly return rate of the capital given to the individuals by the regular MESP program is computed at 3.8 percent (56% annual return rate), being a lower bounded measure (because it considers all of the costs of the program). This return is in line with annual return rate of 55-63% found in Sri Lanka (De Mel et al., 2008), and 37-39% in Ghana (Fafchamps et al., 2011).

We find that MESP has heterogeneous impacts on independent work, but not on labor income. In fact, MESP has a larger impact on independent work for those who were not

employed at the baseline, for those already enrolled in independent activities, but not for individuals currently performing wage labor. This supports the idea that previous experience as micro-entrepreneur positively affects the impact of the program. Furthermore, the program has larger effects on previously unemployed individuals. In parallel, although we did not find any heterogeneous effects associated with formal education, we observed that higher levels of ability are associated with larger program impacts, supporting the conjecture that individuals require basic skills to benefit from this type of intervention.

7 References

Banerjee, Abhijit, Esther Duflo, Racher Glennerster and Cynthia Kinnan (2010), "The Miracle of Microfinance? Evidence from a Randomized Evaluation". BREAD Working Paper 278.

Benavente, José M. and Cintia Külzer (2008), "Creación y Destrucción de Empresas en Chile", Estudios de Economía, Vol. 35, Nº2: 215-239.

Central Bank of Chile (2012), "Encuesta Financiera de Hogares: Metodología y Principales Resultados EFH 2007".

De Mel, Suresh, David Mckenzie and Christopher Woodruff (2008), "Returns to Capital in Microenterprises: Evidence from a Field Experiment", *Quarterly Journal of Economics*, 123(4): 1329-72.

De Mel, Suresh, David McKenzie and Christopher Woodruff (2008) "Who Are the Microenterprise Owners? Evidence from Sri Lanka on Tokman V and de Soto", Policy Research Working Paper 4635, *The World Bank Development Research Group.*

De Mel, Suresh, David Mckenzie and Christopher Woodruff (2009), "Measuring microenterprises Profits: Must We Ask How the Sausage is Made?", *Journal of Development Economics*, 88: 19-31.

De Mel, Suresh, David McKenzie and Christopher Woodruff (2012) "Business Training and Female Enterprise Start-up, Growth, and Dynamics: Experimental evidence from Sri Lanka. Mimeo.

Drexler, Alejandro, Greg Fischer, and Antoinette Schoar (2010) “Keeping it Simple: Financial Literacy and Rules of Thumb”, *CEPR Discussion Paper* No. DP7994.

Fafchamps, Marcel, David McKenzie, Simon Quinn, and Christopher Woodruff (2011) "When is capital enough to get female microenterprises growing? Evidence from a randomized experiment in Ghana," *CEPR Discussion Papers* No. 8466.

Fairlie, Robert, Dean Karlan and Jonathan Zinman (2012) “Behind the Gate Experiment: Evidence on Effects of and Rationales for Subsidized Entrepreneurship Training” NBER Working Paper 17804.

ILO and SERCOTEC (2010) “La situación de la micro y pequeña empresa en Chile” Santiago, Oficina Internacional del Trabajo, Junio

Karlan, Dean and Martin Valdivia (2011) “Teaching Entrepreneurship: Impact of Business Training on Microfinance Clients and Institutions” *The Review of Economics and Statistics*, May 2011, 93(2): 510–527

Karlan, Dean and Jonathan Zinman (2009) “Expanding Microenterprise Credit Access: Using Randomized Supply Decisions to Estimate the Impacts in Manila” Discussion Paper No.976 , *Economic Growth Center, Yale University*.

Karlan, Dean, Ryan Knight and Christopher Udry (2012) “Hoping to Win, Expected to Lose: Theory and Lessons Micro Enterprise Development” *NBER Working Paper* No. 18325.

Kling, J., and J. Liebman (2004), ‘‘Experimental Analysis of Neighborhood Effects on Youth,’ Working Paper # 483, Industrial Relations Section, Princeton University

Lee, David (2005) “Training, Wages, and Sample Selection: Estimating Sharp Bounds on Treatment Effects”. NBER working paper 11721.

Lusardi, Ana Maria and Olivia Mitchell (2006): "Financial Literacy and Planning: Implications for Retirement Wellbeing". Working paper.

Mckenzie, David (2011), "Beyond Baseline and Follow-up: The case for More T in Experiments", *World Bank Working Papers Series*: WPS5639, 2011. (www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/04/25/000158349_20110425104143/Rendered/PDF/WPS5639.pdf)

McKnezie, D. and Christopher Woodruff (2008): "Experimental Evidence on Returns to Capital and Access to Finance in Mexico". *World Bank Economic Review,* 22(3): 457-482.

McKernan, Signe-Mary (2002) "The Impact Of Microcredit Programs On Self-Employment Profits: Do Noncredit Program Aspects Matter?", *The Review of Economics and Statistics*, MIT Press, vol. 84(1), pages 93-115, February.

Morduch, Jonathan (1999) "The Microfinance Promise", Journal of Economic Literature, vol. XXXVII, pages 1569-1814, December.

Ofstedal, Mary B. , Fisher Gwenith G. And A. Regula Herzog (2005) "Documentation of Cognitive Functioning Measrues in the Health and Retirement Study". HRS Documentation Report DR-006.

Román, Eugenio (2003) "Acceso al crédito bancario de las microempresas chilenas: lecciones de la década de los noventa" CEPAL, Serie Financiamiento del Desarrollo, 138.

Table 1: Treatment Groups

		Randomised	Baseline	Follow Up	Both Rounds
Control Group	Pure Control Group	566	532	490	475
T1	MESP	689	649	593	574
T2	MESP + Additional Funding	693	658	629	612
Total		1948	1839	1712	1661

Note: Author's own calculation.

Table 2: Variable means and diffence-test between treatments group

Variables	N obs	Control	T1	T2	p-val T1=C	p-val T1=T2	p-val T2=C
Beneficiary Level							
Gender (1=Male)	1,661	0.06	0.06	0.07	0.79	0.38	0.57
Age	1,661	35.79	36.44	36.17	0.34	0.66	0.57
Primary Education	1,658	0.31	0.32	0.33	0.73	0.76	0.52
Secondary Education Incomplete	1,658	0.24	0.24	0.26	0.87	0.26	0.37
Secondary Education Complete	1,658	0.41	0.38	0.36	0.31	0.44	0.08
Tertiary Education	1,658	0.04	0.06	0.05	0.06	0.25	0.41
SSC score	1,661	3,384	3,374	3,439	0.94	0.62	0.68
Employed	1,652	0.66	0.66	0.65	0.98	0.72	0.72
Entrepreneurship	1,652	0.51	0.51	0.50	0.98	0.83	0.86
Labor income	1,652	53,839	51,275	58,061	0.55	0.09	0.34
Dependent labor income	1,654	19,596	18,376	18,707	0.68	0.91	0.77
Independent labor income	1,659	33,985	32,670	39,323	0.72	0.05	0.16
Applied for a credit	1,661	0.07	0.06	0.09	0.57	0.12	0.37
Credit rejected	120	0.38	0.35	0.31	0.80	0.67	0.48
Debt Holding	1,661	0.65	0.62	0.63	0.30	0.71	0.49
Risk Aversion index	1,659	0.45	0.51	0.47	0.08	0.20	0.58
Ability index	1,661	2.64	2.53	2.70	0.27	0.06	0.47
Financial Literacy Index	1,661	1.33	1.33	1.35	1.00	0.81	0.82

Variables	N obs	Control	T1	T2	p-val T1=C	p-val T1=T2	p-val T2=C
Household Level							
# of workers in Hh	1,661	1.46	1.45	1.38	0.82	0.18	0.13
# of workers rest of Hh	1,661	0.81	0.79	0.73	0.81	0.20	0.13
# of workers over persons in Hh	1,661	0.31	0.31	0.30	0.58	0.31	0.68
Hh Labor Income	1,661	170,023	161,122	168,565	0.37	0.41	0.88
Hh self-generated income	1,661	210,009	198,608	205,601	0.26	0.46	0.68
Hh Total Income	1,661	237,901	226,136	231,614	0.25	0.57	0.55
Number of persons in Hh	1,661	5.01	4.76	4.80	0.04	0.71	0.08
Number of families in Hh	1,661	1.56	1.48	1.48	0.09	0.99	0.09
Per capita Hh labor income	1,661	33,394	33,433	35,612	0.98	0.22	0.24
Per capita Hh total income	1,661	48,305	48,478	49,640	0.93	0.52	0.49
Per capita workers in Hh	1,661	0.31	0.31	0.30	0.58	0.31	0.68

Note: Data from baseline survey conducted by the authors in September-October 2010. Only individuals in both baseline and follow up are included in the sample. Sample size varies depending on the missing values of the respective variable. Column [1] shows the number of observation. Columns [2], [3], and [4] the mean value of the variable for the control, T1 and T2 respectively. Column [5] reports the p-value of the null hypothesis T1=Control Group, column [6] the p-value of the null hypothesis T1=T2 and column [3] the p-value of the null hypothesis T2=C.

Table 3: Independent Work and Employment (Beneficiary Level)

	y = Independent Work				y=Employment			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
T1	0.153	0.154	0.150	0.149	0.118	0.118	0.117	0.116
sd	0.031	0.031	0.030	0.030	0.028	0.028	0.027	0.027
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
T2	0.248	0.244	0.246	0.244	0.175	0.171	0.177	0.174
sd	0.030	0.029	0.029	0.029	0.027	0.027	0.026	0.026
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
y2010			0.288	0.278	0.000	0.000	0.249	0.238
sd			0.024	0.024	0.000	0.000	0.024	0.024
p-value			0.000	0.000	0.000	0.000	0.000	0.000
N	1634	1629	1625	1620	1634.000	1629.000	1625.000	1620.000
R2	0.112	0.130	0.191	0.200	0.092	0.113	0.162	0.174
Mean C	0.440	0.441	0.444	0.445	0.655	0.657	0.659	0.660
p-val T1=T2	0.001	0.001	0.000	0.000	0.014	0.024	0.008	0.012
Controls	strata	strata 2010vars	strata y2010	strata y2010 2010vars	strata	strata 2010vars	strata y2010	strata y2010 2010vars

Note: Data from baseline and follow up survey conducted by the authors in September-October 2010 and October-November 2011 respectively. All income variables are measured in real Chilean pesos of 2011. All regressions include dummies for strata (defined by a socioeconomic index computed by the governme in the Social Security Card score and the municipality). Column [2] includes baseline variables controls: gender, age, education, number of persons in household, number of families in household, assets, risk aversion, and numeracy index. Column [3] includes the baseline value of the dependent variable, and column [4] adds to [3] the full set of baseline controls. Only individuals in both baseline and followup are included in the sample. Standard errors are robust.

Table 4: Dependent, Independent and Total Labor Income (Beneficiary Level)

	y = Labor Income				y = Independent Income			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
T1	22,530	24,083	24,393	25,343	16,811	18,101	17,222	18,121
sd	8,568	8,520	8,004	8,119	7,150	7,104	6,639	6,727
p-value	0.008636	0.004764	0.002347	0.001834	0.019	0.011	0.010	0.007
T2	34,112	34,623	32,346	32,804	30,086	30,215	26,703	26,937
sd	8,927	8,778	8,425	8,398	7,128	6,905	6,904	6,833
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
y2010			0.629	0.579			0.632	0.587
sd			0.113	0.117			0.150	0.150
p-value			0.000	0.000			0.000	0.000
N	1,634	1,629	1,625	1,620	1,635	1,630	1,633	1,628
R2	0.07096	0.104	0.1438	0.1599	0.091	0.123	0.190	0.203
Mean C	70,828	70,979	71,067	71,220	39,081	39,164	39,164	39,248
p-val T1=T2	0.2013	0.2386	0.3656	0.3919	0.035	0.048	0.126	0.143
Controls	strata	strata 2010vars	strata y2010	strata y2010 2010vars	strata	strata 2010vars	strata y2010	strata y2010 2010vars

Note: Data from baseline and follow up survey conducted by the authors in September-October 2010 and October-November 2011 respectively. All income variables are measured in real Chilean pesos of 2011. All regressions include dummies for strata (defined by a socioeconomic index computed by the governme in the Social Security Card score and the municipality). Column [2] includes baseline variables controls: gender, age, education, number of persons in household, number of families in household, assets, risk aversion, and numeracy index. Column [3] includes the baseline value of the dependent variable, and column [4] adds to [3] the full set of baseline controls. Only individuals in both baseline and followup are included in the sample. Standard errors are robust.

Table 5: Working Hours, Hourly Labor Income (Individual Level)

	y = Working Hours		y = Hourly Labor Income	
	[1]	[2]	[3]	[4]
T1	4.365	4.538	317.4	334.5
sd	1.373	1.362	101.7	103.2
p-value	0.002	0.001	0.0	0.0
T2	7.438	7.428	277.2	282.6
sd	1.341	1.330	73.120	73.640
p-value	0.000	0.000	0.000	0.000
y2010				
sd				
p-value				
N	1,628	1,623	1,605	1,600
R2	0.068	0.103	0.078	0.094
Mean C	19.950	19.990	666.6	668.1
p-val T1=T2	0.016	0.022	0.703	0.614
Controls	strata	strata 2010vars	strata	strata 2010vars

Note: Data from baseline and follow up survey conducted by the authors in September-October 2010 and October-November 2011 respectively. All income variables are measured in real Chilean pesos of 2011. All regressions include dummies for strata (defined by a socioeconomic index computed by the governme in the Social Security Card score and the municipality). Column [2] includes baseline variables controls: gender, age, education, number of persons in household, number of families in household, assets, risk aversion, and numeracy index. Column [3] includes the baseline value of the dependent variable, and column [4] adds to [3] the full set of baseline controls. Only individuals in both baseline and followup are included in the sample. Standard errors are robust.

Table 6 : Rest of Hh Members Employed and Per Capita Labor Income (Hh Level)

	y = N Rest of Household Employed				y = Per Capita Hh Labor Income			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
T1	-0.006	0.029	-0.004	0.010	5,747	5,600	5,624	5,468
sd	0.055	0.053	0.051	0.051	2,798	2,811	2,661	2,692
p-value	0.914	0.584	0.940	0.843	0.040	0.047	0.035	0.042
T2	-0.031	0.005	-0.003	0.007	7,173	7,396	6,122	6,166
sd	0.053	0.050	0.049	0.049	2,951	2,901	2,823	2,813
p-value	0.564	0.927	0.957	0.880	0.015	0.011	0.030	0.029
y2010			0.381	0.321			0.464	0.438
sd			0.032	0.038			0.054	0.054
p-value			0.000	0.000			0.000	0.000
N	1,661	1,656	1,661	1,656	1,661	1,656	1,661	1,656
R2	0.081	0.175	0.223	0.243	0.082	0.110	0.155	0.172
Mean C	0.731	0.730	0.731	0.730	42,655	42,703	42,655	42,703
p-val T1=T2	0.619	0.608	0.978	0.952	0.619	0.531	0.857	0.802
Controls	strata	strata 2010vars	strata y2010	strata y2010 2010vars	strata	strata 2010vars	strata y2010	strata y2010 2010vars

Note: Data from baseline and follow up survey conducted by the authors in September-October 2010 and October-November 2011 respectively. All income variables are measured in real Chilean pesos of 2011. All regressions include dummies for strata (defined by a socioeconomic index computed by the governme in the Social Security Card score and the municipality). Column [2] includes baseline variables controls: gender, age, education, number of persons in household, number of families in household, assets, risk aversion, and numeracy index. Column [3] includes the baseline value of the dependent variable, and column [4] adds to [3] the full set of baseline controls. Only individuals in both baseline and followup are included in the sample. Standard errors are robust.

siness Practices (Individual Level)

Panel I: Self Report

	A. y = Marketing		B. y = Inventory Management		C. y = Costing and Record Keeping		D. y = Financial Planning		E. y = Bussiness Practices		F. y = Available Cash	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
T1	1.537	1.561	0.766	0.781	1.548	1.568	0.671	0.676	4.520	4.586	19,354	19,868
sd	0.162	0.162	0.084	0.083	0.150	0.148	0.074	0.074	0.427	0.425	4,603	4,355
T2	1.829	1.860	0.984	0.994	1.945	1.977	0.798	0.810	5.569	5.653	20,359	20,890
sd	0.158	0.158	0.084	0.083	0.147	0.147	0.073	0.073	0.417	0.415	3,540	3,566
N	1,655	1,650	1,658	1,653	1,652	1,647	1,649	1,644	1,659	1,654	1,558	1,553
Mean C	1.157	1.160	0.551	0.552	1.004	1.006	0.494	0.495	3.186	3.193	8,269	8,287
p-val T1=T2	0.093	0.084	0.016	0.019	0.014	0.011	0.109	0.089	0.022	0.019	0.845	0.838

Panel II: Enumerator Report

	G. y = Inventory Available		H. y = Registry Book Available	
	[1]	[2]	[3]	[4]
T1	0.030	0.030	0.033	0.034
sd	0.011	0.011	0.011	0.011
T2	0.048	0.048	0.051	0.052
sd	0.012	0.012	0.012	0.012
N	1,650	1,645	1,649	1,644
Mean C	0.023	0.023	0.021	0.021
p-val T1=T2	0.180	0.177	0.202	0.192

Controls	strata	strata 2010vars	strata	strata 2010vars	strata	strata 2010vars	strata	strata 2010vars	strata	strata 2010vars	strata	strata 2010vars

Note: Data from baseline survey conducted by the authors in September-October 2010. Only individuals in both baseline and follow up are included in the sample. Sample size varies depending on the missing values of the respective variable. Column [1] shows the number of observation. Columns [2], [3], and [4] the mean value of the variable for the control, T1 and T2 respectively. Column [5] reports the p-value of the null hypothesis T1=Control Group, column [6] the p-value of the null hypothesis T1=T2 and column [3] the p-value of the null hypothesis T2=C.

Table 8: Empowerment

Panel A

	y = Woman makes decisions about expenditure				y = Woman makes decisions about savings				y = Woman makes decisions about debts			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
T1	-0.001	0.002	-0.070	-0.072	0.035	0.046	-0.006	-0.022	0.029	0.030	-0.041	-0.069
sd	0.056	0.057	0.062	0.064	0.058	0.059	0.064	0.066	0.054	0.055	0.061	0.062
T2	0.036	0.036	-0.008	-0.018	0.068	0.078	0.023	0.016	0.092	0.099	0.044	0.035
sd	0.056	0.056	0.064	0.064	0.056	0.056	0.066	0.065	0.054	0.054	0.062	0.063
N	576	575	417	417	565	564	410	410	568	567	406	406
Mean C	0.473	0.476	0.474	0.474	0.447	0.450	0.434	0.434	0.335	0.337	0.336	0.336
p-val T1=T2	0.487	0.516	0.297	0.359	0.533	0.551	0.638	0.530	0.225	0.188	0.157	0.078

Panel B

	y =Annual Per Children Educational Expenditure			
	[1]	[2]	[3]	[4]
T1	15,193	14,046	11,664	10,387
sd	10,635	10,812	9,426	9,330
T2	6,677	6,921	10,528	10,249
sd	8,871	8,708	8,611	8,465
N	1,304	1,300	1,181	1,178
Mean C	85,248	85,248	83,018	83,018
p-val T1=T2	0.423	0.507	0.905	0.988

Controls	strata	strata 2010vars	strata y2010	strata y2010 2010vars	strata	strata 2010vars	strata y2010	strata y2010 2010vars	strata	strata 2010vars	strata y2010	strata y2010 2010vars

Note: Data from baseline and follow up survey conducted by the authors in September-October 2010 and October-November 2011 respectively. Regressions include dummies for strata (defined by a socioeconomic index computed by the governme in the Social Security Card score and the municipality). Column [2] includes baseline variables controls: gender, age, education, number of persons in household, number of families in household, assets, risk aversion, and numeracy index. Column [3] includes the baseline value of the dependent variable, and column [4] adds to [3] the full set of baseline controls. Only individuals in both baseline and followup are included in the sample. Standard errors are robust. Sample includes only female beneficieries l with partners.

Table 9: Lower Bounds triming the 4.5% of the distribution

Panei I: Independent Work, Employment, Labor Income and Independent Income

	y= Independent Work		y= Employment		Labor Income		Labor Income form Independent Work	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
T1	0.153	0.154	0.118	0.118	21839	22649	15861	16295
sd	0.031	0.031	0.028	0.028	8402	8323	7008	6945
T2	0.231	0.229	0.167	0.162	9995	10935	10946	11768
sd	0.030	0.030	0.027	0.027	6802	6538	6097	5886
N	1603	1599	1603	1598	1602	1597	1602	1597
Mean C	0.440	0.441	0.655	0.657	70828	70979	39081	39164
p-val T1=T2	0.007	0.009	0.041	0.065	0.085	0.090	0.352	0.395

Panel II: Hours Worked, Hourly Labor Income, Number of other household member employed, per capital labor income

	y=Hours Worked		y= Hourly Labor Income		y = N Rest of Household Employed		y= Per capita Labor Income	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
T1	4.352	4.516	306.5	309.5	-0.006	0.022	5544	5389
sd	1.368	1.357	100.3	101.6	0.055	0.053	2742	2748
T2	4.632	4.615	39.220	42.480	-0.276	-0.226	-1049	-642
sd	1.266	1.251	53.610	53.680	0.047	0.044	2334	2276
N	1596	1591	1575	1570	1580	1575	1630	1625
Mean C	20.0	20.0	666.6	668.1	0.731	0.730	42655	42703
p-val T1=T2	0.815	0.934	0.004	0.003	0.000	0.000	0.004	0.010
Controls	strata	strata 2010vars	strata	strata 2010vars	strata	strata 2010vars	strata	strata 2010vars

Note: We trim the distribution of each independent variable of the additional funding group by the difference in attrition rates between the additonal funding and MESP and control group as a proportion of the retention rate of the additional funding group. In the case of the lower bounds we trim the upper part of the distribution of the y variable. For binary variables, we randomly trim individuals with y=1 variables in the additional funding group.

Table 10: Upper bound trimming the 4.5% of the distibution

Panei I: Independent Work, Employment, Labor Income and Independent Income

	y= Independent Work		y= Employment		Labor Income		Labor income Independent Work	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
T1	0.153	0.154	0.120	0.119	22466	24014	16734	18054
sd	0.031	0.031	0.028	0.028	8582	8525	7151	7107
T2	0.283	0.280	0.220	0.216	39596	39593	33276	33583
sd	0.030	0.029	0.026	0.026	9238	9081	7276	7032
N	1604	1599	1604	1599	1604	1599	1605	1600
Mean C	0.440	0.441	0.655	0.657	70828	70979	39081	39164
p-val T1=T2	0.000	0.000	0.000	0.000	0.067	0.090	0.010	0.014

Panel II: Hours Worked, Hourly Labor Income, Number of other household member employed, per capital labor income

	y=Hours Worked		y= Hourly Labor Income		y = N Rest of Household Employed		y= Per capita Labor Income	
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
T1	4.344	4.499	317.3	332.8	-0.006	0.029	5780	5608
sd	1.373	1.363	101.8	103.2	0.055	0.053	2803	2817
T2	8.820	8.768	317.6	324.7	0.003	0.036	9609	9809
sd	1.348	1.339	74.7	75.2	0.054	0.051	3021	2968
N	1598	1593	1576	1571	1631	1627	1631	1626
Mean C	20.0	20.0	666.6	668.1	0.731	0.730	42655	42703
p-val T1=T2	0.000	0.001	0.997	0.939	0.863	0.889	0.190	0.149
Controls	strata	strata 2010vars	strata	strata 2010vars	strata	strata 2010vars	strata	strata 2010vars

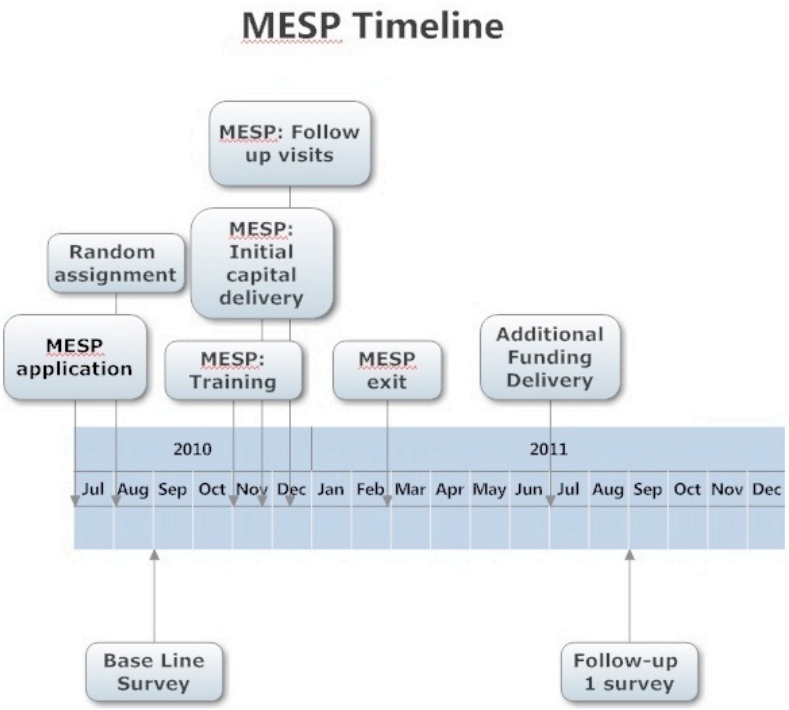
Note: We trim the distribution of each independent variable of the additional funding group by the difference in attrition rates between the additonal funding and MESP and control group as a proportion of the retention rate of the additional funding group. For the case of the upper bound, we trim the lower part of the distribution, however, since thery is a mass at zero for all independent varibles, we randomly trim individuals with y=0 variables in the additional funding group.

Table 11: Treatment Effect Heterogeneity

	y=Independent Work					y=Labor Income				
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
Treatment	0.202***	0.236***	0.228***	0.236***	0.228***	28,499.822***	30,543.813*	32,210.295*	29,775.841*	31,682.976*
	(0.0269)	(0.0668)	(0.0670)	(0.0668)	(0.0670)	(7,492.9002)	(17,699.5609)	(17,428.6638)	(16,567.3894)	(16,501.6014)
Interaction of treatment with:										
Per Capita Income above median		-0.046	-0.046	-0.046	-0.046		-8,034.063	-7,047.827	-3,513.505	-3,400.792
		(0.0527)	(0.0528)	(0.0527)	(0.0528)		(18,347.6054)	(17,892.0644)	(16,698.1662)	(16,578.2083)
Independent Work		-0.105*	-0.101*	-0.105*	-0.101*		-18,607.440	-19,712.553	-15,284.225	-16,939.566
		(0.0551)	(0.0551)	(0.0551)	(0.0551)		(17,550.2714)	(17,522.0495)	(16,126.6018)	(16,220.6174)
Dependent Work		-0.185**	-0.195**	-0.185**	-0.195**		-10,883.931	-13,677.597	-5,603.163	-8,756.321
		(0.0758)	(0.0759)	(0.0758)	(0.0759)		(17,321.8451)	(17,660.8180)	(16,896.1133)	(17,130.9126)
High School or more		-0.072	-0.069	-0.072	-0.069		8,427.207	9,165.679	3,869.955	5,262.220
		(0.0535)	(0.0536)	(0.0535)	(0.0536)		(18,522.2745)	(18,925.2924)	(16,462.6090)	(17,067.5269)
Ability Index		0.040**	0.041**	0.040**	0.041**		4,039.963	3,761.724	2,864.510	2,610.178
		(0.0175)	(0.0176)	(0.0175)	(0.0176)		(5,190.9315)	(5,235.0245)	(5,009.5526)	(5,108.2861)
Controls	strata	strata	strata 2010vars	strata y2010	strata y2010 2010vars	strata	strata	strata 2010vars	strata y2010	strata y2010 2010vars

Note:*** p<0.01, ** p<0.05, * p<0.1. Data from baseline and follow up survey conducted by the authors in September-October 2010 and October-November 2011 respectively. All income variables are measured in real Chilean pesos of 2011. All regressions include dummies for strata (defined by a socioeconomic index computed by the governmet in the Social Security Card score: SSC). Columns [1] and [6] report the overall treatment effect. Columns [2] and [7] include the interactions. Columns [3] and [8] includes baseline variables controls: gender, age, education, number of persons in household, number of families in household, assets, risk aversion, and numeracy index. Column [4] includes the baseline value of the dependent variable, and columns [5] adds to [4] the full set of baseline controls. Only individuals in both baseline and followup are included in the sample. Standard errors are robust.

Figure 1


MESP Timeline
MESP: Follow up visits
MESP: Initial capital delivery
Random assignment
MESP application
MESP: Training
MESP exit
Additional Funding Delivery
2010
2011
Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Base Line Survey
Follow-up 1 survey

Annex Table 1: Attrition

y = 1 if in follow up survey	Statistic
T1	-0.008
sd	0.012
p-value	0.493
T2	0.037
sd	0.013
p-value	0.011
N	1,839
R2	0.005
Mean C	0.893
p-val T1=T2	0.004

Note: OLS regression of a dummy variable equal to 1 if the individual is observed in the baseline and follow-up survey, and equal to 0 if the individual is observed in the baseline, but not in the follw-up survey.

Appendix 2: Business Practices

The **marketing** score ranges from 0 to 9. One point is added for each one of the following activities that the beneficiary completed within the last 3 months:

1.- Visited at least one of its competitor's businesses to note the prices competitors are charging

2.- Visited at least one of its competitor's businesses to note products competitors have available for sale

3.- Asked existing customers whether there are any other products the customers would like the business to sell or produce

4.- Talked to at least one former customer to find out why former customers have stopped buying from this business

5.- Asked a supplier about which products are selling well in this business' industry

6.- Attracted customers with a special offer

7.- Advertised in any form

In addition, we have added one additional point for each yes response to the following two questions:

8.- Do you price any of your goods at prices slightly less than round numbers? (For instance, $ 999 instead of $1,000)

9.- ¿Have you suggested to your clients new products that they might be interested in?

The **stock management** score ranges from 0 to 5. One point is added for each of the following activities the beneficiary has completed within the last 3 months

1.- Attempted to negotiate with a supplier for a lower price on raw material

2.- Compared the prices or quality offered by alternate suppliers or sources of raw materials to your business' current suppliers.

In addition, one point was awarded for each affirmative answer to the following two questions

3.- Do you maintain an inventory of your business?

4.- Do you have a record that allows you to know your inventory?

As to the following question:

5.- How often do you update the information of your inventory?

a.- One point for answering daily.

b.- Zero points for answering weekly, monthly, less than monthly and never

The **costing and record keeping** score ranges from 0 to 7, and is calculated by adding one point for each of the following activities conducted by the beneficiary:

1.- Records every purchase and sale made by the business

2.- Able to use records to see how much cash the business has on hand at any point in time

3.- Uses records regularly to know whether sales of a particular product are increasing or decreasing

4.- Works out the cost to the business of each main product it sells

5.- Knows which goods you make the most profit per item selling

6.- Has a written budget, which states how much is owed each month for rent, electricity, equipment maintenance, transport, advertising, and other indirect costs to business

7.- Has records documenting that there exists enough money each month after paying business expenses to repay a loan in the hypothetical situation that this business wants a bank loan

The **financial planning** score ranges from 0-4. The first question awards points on the basis of the scale below it,

1.- How frequently do you review the financial performance of your business and analyze where there are areas for improvement

a.- Zero points for “Never”, “Once a year or less” and “Two or three times a year”

b.- One point for “Monthly or more often”

Questions 2 and 3 award up to 1 point to each affirmative answer

2.- Do you have a target set for sales over the next year

3.- Do you have a budget of the likely costs your business will have to face over the next year

fFinally, one point for conducting one or more of the following activities.

- An annual profit and loss statement
- An annual statement of cash flow
- An annual balance sheet
- An annual income/expenditure sheet